

ABSTRACT OF THE DISCLOSURE

A metal alloy which when oxidized forms a highly conductive surface oxide layer.

5 Alloy compositions such as, but not limited to, Ti-Nb, Ti-Ta, La-Sr-Cr, and La-Sr-Co are known to form oxide passivation layers which are highly conductive. Such alloys are useful in electrical contact apparatus. An electrical contact element formed of the alloy has a contact surface which when oxidized forms a highly conductive surface layer, thus maintaining electrical conductivity and continuity through the element. The oxide layer
10 may be formed in situ after assembly of the electrical contact or may be provided in an oxidative step during manufacture. The electrical contact may be formed entirely of one or more of such alloys; or may be formed of an inexpensive substrate base metal, such as steel, having one or more of the alloys coated thereupon; or may be formed of a mixture of the base metal and the alloy.

15